

1 WHAT IS CLAIMED IS:

5 1. A communication support system
which is adapted to connect a telephone unit through a
communication control device to a data processing
10 device and adapted to connect a telephone network to
the communication control device, the communication
support system comprising:

15 a command signal recognition unit for
discretely detecting a command signal sent by the
telephone unit and a command signal sent from the
telephone network, and for determining whether the
command signal is from the telephone unit, the command
signal from the telephone unit indicating one of a
plurality of telephone services of the data processing
device;

20 a signal transmission inhibition unit
for inhibiting transmission of a signal from the
telephone unit to the telephone network; and
a telephone service processing unit for
performing a telephone service processing of the data
25 processing device for the telephone service indicated
by the command signal from the telephone unit, the
telephone service processing unit starting execution
of the telephone service processing when the command
signal recognition unit determines that the command
30 signal is from the telephone unit.

35 2. The communication support system
according to claim 1, wherein the signal transmission
inhibition unit comprises:

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1 a first converter unit for separating a
data signal sent from the telephone network into a
dual-tone multiple frequency signal and a voice
signal;
5 a second converter unit for separating
a data signal sent by the telephone unit into a dual-
tone multiple frequency signal and a voice signal; and
a switch provided on a connection line
of the first converter unit and the second converter
10 unit for switching on or off the connection line to
selectively provide one of connection of the telephone
unit and the telephone network through the switch and
disconnection of the telephone network from the
telephone unit.

3. The communication support system according to claim 1, wherein the command signal recognition unit detects a dual-tone multiple frequency DTMF signal sent by the telephone unit, the command signal recognition unit determining that the command signal is from the telephone unit when said DTMF signal indicates one of a plurality of defined values allocated to the plurality of telephone services.

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4. The communication support system according to claim 3, wherein the command signal recognition unit detects a dual-tone multiple frequency DTMF signal sent from the telephone network,

35 the command signal recognition unit distinguishing between the DTMF signal from the telephone network and

1 the DTMF signal from the telephone unit.

5. The communication support system according to claim 3, wherein the telephone service processing unit performs a telephone service processing of the data processing device for the telephone service indicated by the DTMF signal from the telephone unit.

15 6. The communication support system
according to claim 1, wherein the communication
control device comprises a line switching unit for
selectively providing one of connection of the
20 telephone unit and the telephone network through the
line switching unit and disconnection of the telephone
network from the telephone unit.

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7. The communication support system according to claim 1, wherein the command signal recognition unit comprises:

30 a first DTMF detection unit for detecting a dual-tone multiple frequency DTMF signal sent from the telephone network; and

a second DTMF detection unit for detecting a dual-tone multiple frequency DTMF signal sent by the telephone unit.

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1 8. The communication support system
according to claim 7, wherein the communication
control device comprises a DTMF generator unit for
generating a dual-tone multiple frequency DTMF signal
5 based on the DTMF signal sent by the telephone unit,
the DTMF generator unit transmitting the DTMF signal
from the communication control device to the telephone
network before the transmission of a signal from the
telephone unit to the telephone network is inhibited
10 by the signal transmission inhibition unit.

15 9. The communication support system
according to claim 1, wherein the telephone service
processing unit performs one of a voice recording
processing, a voice playback processing, a file
transmission processing and a telephone number entry
20 processing based on the telephone service indicated by
the command signal from the command signal recognition
unit.

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10. A communication control device adapted to connect a telephone unit and a data processing device through the communication control device and adapted to connect a telephone network to the communication control device, comprising:

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> a line switching unit for selectively providing one of connection of the telephone unit and the telephone network through the line switching unit and disconnection of the telephone network from the

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telephone unit;

a command signal recognition unit for

1 discretely detecting a command signal sent by the
telephone unit and a command signal sent from the
telephone network, and for determining whether the
command signal is from the telephone unit, the command
5 signal from the telephone unit indicating one of a
plurality of telephone services of the data processing
device; and

10 a signal transmission inhibition unit
for inhibiting transmission of a signal from the
telephone unit to the telephone network by controlling
the line switching unit.

15 11. The communication control device
according to claim 10, wherein the signal transmission
inhibition unit comprises:

20 a first converter unit for separating a
data signal sent from the telephone network into a
dual-tone multiple frequency signal and a voice
signal;

25 a second converter unit for separating
a data signal sent by the telephone unit into a dual-
tone multiple frequency signal and a voice signal; and

30 a switch provided on a connection line
of the first converter unit and the second converter
unit for switching on or off the connection line to
selectively provide one of connection of the telephone
unit and the telephone network through the switch and
disconnection of the telephone network from the
telephone unit.

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12. The communication control device

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1 according to claim 10, wherein the command signal
recognition unit detects a dual-tone multiple
frequency DTMF signal sent by the telephone unit, the
command signal recognition unit determining that the
5 command signal from the telephone unit is detected
when said DTMF signal indicates one of a plurality of
defined values allocated to the plurality of telephone
services.

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13. The communication control device
according to claim 12, wherein the command signal
15 recognition unit detects a dual-tone multiple
frequency DTMF signal sent from the telephone network,
the command signal recognition unit distinguishing
between the DTMF signal from the telephone network and
the DTMF signal from the telephone unit.

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14. The communication control device
25 according to claim 10, wherein the command signal
recognition unit comprises:

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a first DTMF detection unit for
detecting a dual-tone multiple frequency DTMF signal
sent from the telephone network; and

30 a second DTMF detection unit for
detecting a dual-tone multiple frequency DTMF signal
sent by the telephone unit.

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15. The communication control device

1 according to claim 14, further comprising a DTMF
generator unit for generating a dual-tone multiple
frequency DTMF signal based on the DTMF signal sent by
the telephone unit, the DTMF generator unit
5 transmitting the DTMF signal to the telephone network
before the transmission of a signal from the telephone
unit to the telephone network is inhibited by the
signal transmission inhibition unit.

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16. A method of executing a telephone
service processing in a communication support system
15 which is adapted to connect a telephone unit through a
communication control device to a data processing
device and adapted to connect a telephone network to
the communication control device, the method
comprising the steps of:

20 discretely detecting a command signal
sent by the telephone unit and a command signal sent
from the telephone network;

determining whether the command signal
is from the telephone unit, the command signal from
25 the telephone unit indicating one of a plurality of
telephone services of the data processing device;

inhibiting transmission of a signal
from the telephone unit to the telephone network; and
starting execution of a telephone
30 service processing of the data processing device for
the telephone service indicated by the command signal
from the telephone unit when it is determined in said
determining step that the command signal is from the
telephone unit.

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1 17. A computer readable medium storing
program code for causing a processor to execute a
telephone service processing in a communication
support system which is adapted to connect a telephone
5 unit through a communication control device to a data
processing device and adapted to connect a telephone
network to the communication control device,
comprising:

10 first program code means for causing
the processor to discretely detect a command signal
sent by the telephone unit and a command signal sent
from the telephone network;

15 second program code means for causing
the processor to determine whether the command signal
is from the telephone unit, the command signal from
the telephone unit indicating one of a plurality of
telephone services of the data processing device;

20 third program code means for causing
the processor to inhibit transmission of a signal from
the telephone unit to the telephone network; and

25 fourth program code means for causing
the processor to start execution of a telephone
service processing of the data processing device for
the telephone service indicated by the command signal
from the telephone unit when it is determined by said
third program code means that the command signal is
from the telephone unit.

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